CERTIFICATE OF CORRECTION

PATENT NO.

: 6,987,116 B2

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APPLICATION NO.: 10/719359

DATED

: January 17, 2006

INVENTOR(S)

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 30, Lines 45-46

Replace " $R^3(C(R^8)_2)_q$ - CO_2H , and $R^3(C(R^8)_2)_q$ -COQ" with -- R^3 - $C(O)XR^8$, wherein X is O and R^8 is H, or R^3 -C(O)Q --

Column 30, Line 47

Replace "R³(C(R⁸)₂)_q-CO₂R⁴. Compounds" with -- R³-C(O)XR⁸, wherein X is O and R⁸ is lower alkyl. Esters --

Column 30, line 48

Replace "R³(C(R⁸)₂)_q-CO₂R⁴" with -- R³-C(O)XR⁸, wherein X is O and R⁸ is lower alkyl ---

Column 30, lines 49-50

Delete "of formula Ia where the group R2 is R3(C(R8)2)q-CO2H"

Column 30, line 53

Replace " $R^3(C(R^8)_2)_q$ -Q" with -- R^3 -C(O)Q --

Column 30, lines 59-66, and column 31, lines 34-41

Replace formula Ia with:

Column 31, lines 2-9

Replace formula Ia with:

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PATENT NO. : 6,987,116 B2 Page 2 of 13

APPLICATION NO.: 10/719359
DATED: January 17, 2006

INVENTOR(S) : Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 31, lines 10-17 Replace formula Ia with:

HO
$$R^3$$
 S CN

$$Ia$$

$$R^2 = R^3 - CH_2OH$$

Column 31, lines 20-31 Replace formula Ia with:

$$R^{2} = R^{3} + O$$

Column 31, lines 44-51 Replace formula Ia with:

 $R^2 = R^3 - C(O)XR^8$ X=O; $R^8 = alkyi$

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PATENT NO.

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APPLICATION NO.: 10/719359

: January 17, 2006

INVENTOR(S)

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 31, lines 55-62 Replace formula Ia with:

 $R^2 = R^3 - C(O)XR^8$ X=0; $R^8 = H$

Column 32, lines 2-10 Replace formula Ia with:

 $R^2 = R^3$ -COQ

Column 38, lines 66-67

Replace "R³ substituted with $(C(R^8)_2)_q$ -CO₂H, and $(C(R^8)_2)_q$ -COQ" with -- R³-C(O)XR⁸, wherein X is O and R⁸ is H, or R³-C(O)Q --

Column 39, lines 1-2

Replace " R^3 substituted by $(C(R^8)_2)_q$ - CO_2R^4 . Compounds" with -- R^3 - $C(O)XR^8$, wherein X is O and R^8 is lower alkyl. Esters --

Column 39, line 3

Replace "R³ substituted with (C(R⁸)₂)_q-CO₂R⁴" with -- R³-C(O)XR⁸, wherein X is O and R⁸ is lower alkyl, --

Column 39, lines 4-5

Delete "of formula Ib where the group R² is R³ substituted by (C(R⁸)₂)_a-CO₂H"

Column 39, lines 8-9

Replace " R^3 substituted with $(C(R^8)_2)_q$ -COQ" with -- R^3 -C(O)Q --

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,987,116 B2 APPLICATION NO. : 10/719359

: January 17, 2006

INVENTOR(S)

DATED

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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Column 39, lines 15-22 and lines 50-57 Replace formula Ib with:

CHO
$$\frac{XR^1}{S}$$
 CN $\frac{R^3}{S}$ CN $\frac{1b}{R^2 = R^3}$ CHO

Column 39, lines 23-30 Replace formula Ib with:

Q
$$R^3$$
 S N CN

Ib

 $R^2 = R^3 - CH_2Q$

Column 39, lines 31-38 Replace formula Ib with:

HO
$$R^3$$
 S N Ib $R^2 = R^3 - CH_2OH$

Column 39, lines 39-49 Replace formula Ib with:

CERTIFICATE OF CORRECTION

PATENT NO. : 6,987,116 B2 Page 5 of 13

APPLICATION NO.: 10/719359 DATED: January 17, 2006

INVENTOR(S) : Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 39, lines 59-66 Replace formula Ib with:

ib $R^2 = R^3 - C(O)XR^8$ X=O; $R^8 = atkyi$

Column 40, lines 2-10 Replace formula Ib with:

Ib R² = R³-C(O)XR⁸ X=O; R⁸ = H

Column 40, lines 14-22 Replace formula Ib with:

Ib R² = R³-COO

CERTIFICATE OF CORRECTION

PATENT NO.

: 6,987,116 B2

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APPLICATION NO.: 10/719359

DATED

: January 17, 2006

INVENTOR(S)

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 42, lines 21-28

Replace chemical equation with:

 $R^2 = R^3 =$ alkyne or alkene

Column 42, lines 31-38

Replace chemical equation with:

 $R^2 = R^3 =$ aryl or heteroaryl

Column 42, lines 39-45

Replace chemical equation with:

 $R^2 = R^3 =$ aryl or heteroaryl

Column 45, lines 10-16

Replace chemical equation with:

 $R^2 = R^3 = alkyne$ or alkene

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PATENT NO. : 6,987,116 B2 Page 7 of 13

APPLICATION NO. : 10/719359 DATED : January 17, 2006

INVENTOR(S) : Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 45, lines 17-24

Replace chemical equation with:

$$R^2 = LG = Br or I$$
 $R^3 - BL^1L^2$
 $R^3 - BL^1L^2$
 $R^2 = R^3 = aryl or heteroaryl$

Column 45, lines 25-31

Replace chemical equation with:

$$R^2 = LG = Br \text{ or } I$$
 $R^3 - SnR_3$
 $R^3 - SnR_3$
 $R^2 - R^3 = aryl \text{ or heteroaryl}$

Column 46, lines 20-40

Replace chemical equation with:

Column 46, lines 41-54

Replace chemical equation with:

CERTIFICATE OF CORRECTION

PATENT NO.

: 6,987,116 B2

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APPLICATION NO.: 10/719359

DATED

: January 17, 2006

INVENTOR(S)

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 48, lines 50-57

Replace chemical equation with:

R² = R³ = alkyne or alkene

Column 48, lines 58-66

Replace chemical equation with:

LG
$$\rightarrow$$
 CN \rightarrow Pd catalyst \rightarrow R² = R³ = aryl or heteroaryl

Column 49, lines 2-10

Replace chemical equation with:

LG
$$\rightarrow$$
 CN \rightarrow Pd catalyst \rightarrow R² = R³ = aryl or heteroaryl

CERTIFICATE OF CORRECTION

PATENT NO.

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APPLICATION NO.: 10/719359

DATED

: January 17, 2006

INVENTOR(S)

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 51, lines 31-39

Replace chemical equation with:

 $R^2 = R^3 = alkyne$ or alkene

Column 51, lines 40-48 Replace chemical equation with:

$$R^2$$
 R^3 and or heteroanyl

Column 51, lines 49-57 Replace chemical equation with:

R2 = LG =Br or I

CERTIFICATE OF CORRECTION

PATENT NO.

: 6,987,116 B2

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APPLICATION NO.: 10/719359

DATED

: January 17, 2006

INVENTOR(S)

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 52, line 52, through column 53, line 9 Replace chemical equation with:

Column 53, lines 10-26

Replace chemical equation with:

Column 56, lines 38-65

Replace bottom left formula in Scheme 17 with:

Column 107, lines 43-44

Replace "-(C(R3)₂)_qXR⁸, -(C(R3)₂)_qQ, -X(C(R3)₂)_nXR⁸, -X(C(R3)₂)_nQ, or -X(C(R3)₂)_qR⁸" with -- -(C(R⁹)₂)_qXR⁸, -(C(R⁹)₂)_qQ, -X(C(R⁹)₂)_nXR⁸, -X(C(R⁹)₂)_nQ, or -X(C(R⁹)₂)_q R⁸ --

Column 108, line 26

Replace "- $(C(R^9)_2)_nXR^3$ " with -- - $(C(R^9)_2)_nXR^4$ --

Column 108, line 27

Replace "- $(C(R^9)_2)_a XR^3$ " with -- - $(C(R^9)_2)_a XR^4$ --

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PATENT NO.

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APPLICATION NO.: 10/719359

DATED

: January 17, 2006

INVENTOR(S)

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 108, line 35

Replace "and" with -- or --

Column 109, line 5

Replace "- $(CH^2)_aNR^4R^8$ " with -- - $(CH_2)_aNR^4R^8$ --

Column 109, line 11

Replace "-NH(CH₂)_nCR⁸" with -- -NH(CH₂)_nNR⁴R⁸ --

Column 109, line 32

Replace "- $(CH_2)_nOR^3$ " with -- - $(CH_2)_nOR^4$ --

Column 109, lines 33-34

Replace "- $(CH_2)_0OR^3$ " with -- - $(CH_2)_0OR^4$ --

Column 117, line 3

Replace "carbonite" with -- carbonitrile --

Column 117, line 67

Replace "- $(CH_2)_nOR^3$ " with -- - $(CH_2)_nOR^4$ --

Column 118, lines 1-2

Replace "- $(CH_2)_qOR^3$ " with -- - $(CH_2)_qOR^4$ --

Column 118, line 10

Replace "and iodo" with -- or iodo --

Column 119, line 36

Replace "carbonite" with -- carbonitrile --

Column 121, line 67

Replace "and" with -- or --

Column 122, line 51

Replace "-R₅NR₄C(O)NR⁴R⁴" with -- -R⁵NR⁴C(O)NR⁴R⁴ --

Column 123, line 11

Replace "- $S(O)R_mR^4$ " with -- - $S(O)_mR^4$ -.

CERTIFICATE OF CORRECTION

PATENT NO.

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APPLICATION NO.: 10/719359

DATED

: January 17, 2006

INVENTOR(S)

: Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 123, line 41

Replace "- $(C(R^9)_2)_n XR^3$ " with -- - $(C(R^9)_2)_n XR^4$ --

Column 123, line 42

Replace "- $(C(R^9)_2)_q XR^3$ " with -- - $(C(R^9)_2)_q XR^4$ --

Column 123, line 46

Replace "Z' and Z"" with-- Z" and Z" --

Column 123, line 50

Replace "and iodo" with -- or iodo --

Column 130, line 1

Replace "and" with -- or --

Column 130, line 43

Replace "group may by one groups" with -- wherein the R³ group may be substituted by one or more groups --

Column 130, line 44

Replace "-C(O)XR6" with -- -C(O)XR8 --

Column 130, line 66

Replace "- $(C(R^9)_2)_n X R^3$ " with -- - $(C(R^9)_2)_n X R^4$ --

Column 130, 1ine 67

Replace "- $(C(R^9)_2)_q XR^3$ " with -- - $(C(R^9)_2)_q XR^4$ --

Column 131, line 4

Replace "Z' and Z'" with -- Z" and Z" --

Column 131, line 8

Replace "and iodo" with -- or iodo --

Column 131, line 33

Replace "and" with -- or --

Column 131, line 65

Replace "- $\stackrel{\cdot}{NH}(CH_2)_nOR^6$ " with -- - $NH(CH_2)_nOR^8$ --

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,987,116 B2 Page 13 of 13

APPLICATION NO. : 10/719359 DATED : January 17, 2006

INVENTOR(S) : Diane Harris Boschelli et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 132, line 1

Replace "-NH(CH₂)_nCR⁸" with -- -NH(CH₂)_nNR⁴R⁸ --

Column 132, line 25

Replace "- $(CH_2)_nOR^3$ " with -- - $(CH_2)_nOR^4$ --

Column 132, lines 26-27

Replace "- $(CH_2)_qOR^3$ " with -- - $(CH_2)_qOR^4$ --

Column 132, line 35

Replace "and iodo" with -- or iodo --

Column 134, line 26

Replace "carbonite" with -- carbonitrile --

Signed and Sealed this

Seventh Day of November, 2006

JON W. DUDAS
Director of the United States Patent and Trademark Office